

Appln. No. 10/070,884

Attorney Docket No. 11721-018

**III. Remarks**

Claims 1-20 are pending in the application. Claims 2, 3, 9, 11 and 12 have been cancelled. Claims 1, 8, 10 and 15 - 17 have been amended. No new claims have been added.

**Rejections Under 35 USC § 112**

Claims 11 and 12 are rejected under 35 USC §112, first and second paragraph. By this Amendment, claims 11 and 12 have been cancelled. Thus, the rejections of claims 11 and 12 are now moot.

With respect to claims 6-20, each of these claims have been amended to address the indefiniteness kindly pointed out by the Examiner. Thus, Applicants assert that claims 6-20 are now in a condition for allowance and respectfully request allowance of these claims.

**Rejections Under 35 USC § 102**

Claims 8-10, 13, 15, 17 and 18 are rejected under 35 USC §102(b) as being anticipated by U.S. Patent No. 5,419,407 issued to Meyer et al. (Meyer).

Meyer discloses a triggering mechanism for a side airbag. The triggering mechanism has a deformation sensor for determining a rate of deformation. The deformation sensor is made of two pressure sensitive sensor elements which are attached on a carrier plate parallel to the outside skin inside the vehicle. The deformation sensor includes two sensor elements which are attached on both sides of a common carrier plate parallel to the outer skin. The pressure sensitive surfaces of the sensor elements are directed outward. The first sensor element detects a force effect which emanates directly from the outer skin while the second element detects a force effect from the direction of the member. The carrier plate is fixedly held at a constant distance from the member by spacer elements. The spacer elements protrude as legs from the longitudinal sides of the carrier plate and on the member side merge with clip elements (Column 3, lines 31-48; Figures 2-3). Furthermore, Meyer discloses distributing a plurality of

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BRINKS
HOFFER
GILSON
& LIONE

BRINKS HOFFER GILSON & LIONE  
PO Box 10395  
Chicago, IL 60611-5599

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deformation sensors over a surface to be sensed and combining their triggering signals (Column 6, lines 1-4).

The sensing system of the present invention provides a plurality of deformation sensor elements horizontally and longitudinally spaced along a structural element of a vehicle. Each of the plurality deformation sensors is capable of generating a variable output signal. The system further includes a controller for detecting a change in each of the plurality deformation sensors and based on the detected change in each of the variable output signals determines the location of the impact along the structural element.

Meyer does not disclose a plurality of deformation sensor elements horizontally and longitudinally spaced along a structural element of a vehicle, as now claimed in claim 8. Meyer discloses distributing sensors over a surface and combining their outputs. Meyer is not directed to determining the discrete location of the impact. Meyer is directed to determining how much kinetic energy an incoming object has (Column 5, lines 59-68 and Column 6, lines 1-15). As such, Meyer teaches away from the present invention, as now claimed, in claims 8 and 15 by providing a combined sensor signal output which is not useful for determining the location of the impact along a structural element. Applicants assert that independent claims 8 and 15, as amended, are now patentable over Meyer. Accordingly, Applicants respectfully request allowance of claims 8 and 15.

With respect to claims 9, 10, 13, 17 and 18, these claims ultimately depend from either claim 8 or 15 and therefore are patentable for at least the same reasons as given above in support of claims 8 and 15. Of course, claims 9, 10, 13, 17 and 18 include limitations and features that render these claims independently patentable over Meyer. Accordingly, Applicants respectfully request allowance of claims 9, 10, 13, 17 and 18.

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BRINKS
HOFFER
GILSON
LIONE

BRINKS HOFER GILSON & LIONE  
PO Box 10395  
Chicago, IL 60611-5599

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**Rejections Under 35 USC § 103**

Claims 1-4 and 6 are rejected under 35 USC §103(a) as being unpatentable over Meyer in view of U.S. Patent No. 5,583,476 issued to Langford (Langford).

Langford discloses a deflectable substrate such as a phenolic resin having a conductive ink deposited thereon in a pattern preferably with a segmented conductor positioned on top to form a flexible potentiometer. For example, the pattern is U-shaped (Column 2, lines 54-62 and Column 3, lines 5-9). The segments are positioned on the conductive ink to regulate the conductivity and in turn the electrical resistance of the conductive ink. The electrical resistance of the potentiometer consistently, predictably varies as the potentiometer is bent or deflected incrementally to any configuration between configurations A, B and C as well as other configurations involving greater bending or deflection (Column 4, lines 35-40; Figure 4). Slide connectors are riveted to a substrate or otherwise affixed to interconnect a first leg and a second leg of the potentiometer with exterior electrical components such as a microprocessor.

Langford, however, does not disclose a plurality of deformation sensor elements horizontally and longitudinally spaced along a structural element of a vehicle, as now claimed in claim 1. Langford discloses a deflectable substrate having a conductive ink deposited thereon in a pattern preferably with a segmented conductor positioned on top to form a flexible potentiometer. Langford is not directed to determining the discrete location of an impact. Langford is directed to determining the amount of bending in the substrate. As such, Langford teaches away from the present invention, as now claimed, in claims 1 by providing a single sensor signal output which is not useful for determining the location of the impact along a structural element. Applicants assert that independent claim 1, as amended, is now patentable over Meyer and Langford taken together or separately. Accordingly, Applicants respectfully request allowance of claim 1.

Claims 5 and 7 are rejected under 35 USC §103(a) as being unpatentable over Meyer in view of Langford and further in view of U.S. Patent No. 6,169,479 issued to Boran et al. (Boran). However, Boran does not disclose a plurality of deformation sensor elements horizontally and longitudinally spaced along a

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BRINKS
HOFFER
GILSON
ALONE

BRINKS HOFFER GILSON & LIONE  
PO Box 10395  
Chicago, IL 60611-5599

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structural element of a vehicle, as now claimed in claim 1. Thus, since claims 5 and 7 are ultimately dependant on claim 1, claims 5 and 7 are patentable for at least the same reasons as given in support of claim 1. Accordingly, Applicants respectfully request allowance of claims 5 and 7.

Claims 11, 12, 14, 16, 19 and 20 are rejected under 35 USC §103(a) as being unpatentable over Meyer in view of Boran. Claims 11 and 12 have been cancelled. With regard to claims 14, claim 14 is ultimately dependant on claims 8 and therefore is patentable over Meyer and Boran taken together or separately for at least the same reasons as given above in support of claim 8. Accordingly, Applicants respectfully request allowance of claim 14. With regard to claims 16, 19 and 20, these claims ultimately dependant on claim 15 and therefore are patentable over Meyer and Boran taken together or separately for at least the same reasons as given above in support of claim 15. Accordingly, Applicants respectfully request allowance of claim 16, 19 and 20.

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BRINKS HOFER GILSON & LIONE  
PO Box 10395  
Chicago, IL 60611-5599

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**SUMMARY**

Pending Claims 1, 4-8, 10, 13-20 as amended are patentable. Applicants respectfully request the Examiner grant early allowance of these claims. The Examiner is invited to contact the undersigned attorneys for the Applicants via telephone if such communication would expedite this application.

Respectfully submitted,

Date

7/2/04

  
Raymond J. Vioracqua (Reg. No. 45,369)  
Attorney for Applicants

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BRINKS
HOFFER
GILSON
LIONE

BRINKS HOFFER GILSON & LIONE  
PO Box 10395  
Chicago, IL 60611-5599